

CLAIMS:

1. A test handler comprising:
 - a platform configured to move semiconductor devices placed on the
 - 5 platform from an onloading position to an offloading position along a predetermined path;
 - a transfer arm located adjacent the path; and
 - a plurality of transfer heads connected to the transfer arm that are configured to pick up and transfer semiconductor devices from the platform to a
 - 10 testing position for testing, and thereafter to transfer the semiconductor devices from the testing position to the platform for offloading.
2. A test handler as claimed in claim 1, wherein the transfer arm comprises a rotary arm.
- 15 3. A test handler as claimed in claim 2, wherein the transfer heads connected to the transfer arm are arranged on a plane that is substantially perpendicular to the predetermined path.
- 20 4. A test handler as claimed in claim 1, including a device precision station positioned such that the semiconductor devices are transferred by the transfer heads to the device precision station for alignment before they are transferred to the testing position.
- 25 5. A test handler as claimed in claim 4, wherein the transfer heads are oriented such that when one transfer head is at the testing position, another transfer head is at a position of the device precision station.
- 30 6. A test handler as claimed in claim 5, wherein the testing position and device precision station are adapted such that testing of a semiconductor device at the testing position and alignment of another semiconductor device at the device precision station are carried out substantially concurrently.

7. A test handler as claimed in claim 1, wherein the transfer heads are oriented such that when one transfer head is at a position adjacent the platform, another transfer head is at the testing position.
- 5 8. A test handler as claimed in claim 1, wherein the platform comprises a turntable.
9. A test handler as claimed in claim 1, including a plurality of carriers on the platform aligned along the predetermined path, each carrier comprising multiple
10 holders for holding multiple semiconductor devices.
10. A test handler as claimed in claim 1, wherein the transfer arm has a total of four transfer heads connected to it.
- 15 11. A test handler as claimed in claim 1, including a plurality of transfer ports connected to each transfer head, each transfer port being configured to hold one semiconductor device during transfer.
12. A test handler as claimed in claim 1, including a thermal insulation wall
20 bounding a perimeter of substantially an area occupied by the platform.
13. A method for testing semiconductor devices with a test handler comprising the steps of:
- 25 placing the semiconductor devices onto an onloading position of a platform;
- moving the semiconductor devices along a predetermined path;
- picking up and transferring semiconductor devices along the path from the platform to a testing position with one of a plurality of transfer heads;
- testing the semiconductor devices;
- 30 transferring the semiconductor devices from the testing position to the platform; and thereafter
- moving the semiconductor devices to an offloading position for removal from the platform.

14. A method as claimed in claim 13, wherein the transfer arm comprises a rotary arm.
15. A method as claimed in claim 14, wherein the transfer heads are
5 arranged along a plane that is substantially perpendicular to the path moved by the semiconductor devices.
16. A method as claimed in claim 13, including the step of transferring the semiconductor devices to a device precision station and aligning the
10 semiconductor devices before transferring the semiconductor devices to the testing position.
17. A method as claimed in claim 16, including testing a semiconductor device while aligning another semiconductor device for testing.
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18. A method as claimed in claim 13, wherein the platform comprises a turntable.
19. A method as claimed in claim 13, including holding a plurality of
20 semiconductor devices simultaneously during transfer to the testing position.
20. A method as claimed in claim 13, including bounding a perimeter of substantially an area occupied by the platform with a thermal insulation wall.